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NOTES FOR A STUDY IN
CITY PLANNING
IN
CHAMPAIGN-URBANA

BY THE
1913 AND 1914 CLASSES IN CIVIC DESIGN
AT THE UNIVERSITY OF ILLINOIS



LOS ANGELES,
CALIFORNIA.

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EXPLANATORY NOTE

This publication is offered to the public by the Department of Horticulture of the University of Illinois in an effort to stimulate a general interest in all matters pertaining to civic betterment. Having as a subject conditions existing in Champaign and Urbana, it embodies general principles of procedure which relate to civic problems everywhere; it may, therefore, be considered as typical, and its application is by no means confined to the specific examples presented here. While it is the work of students, primarily as a portion of their regular city plan study, it should not be forgotten that the entire work is not only directed and supervised but carefully criticised and brought together by Charles Mulford Robinson, Professor of Civic Design in the University of Illinois. Mr. Robinson has spent several weeks studying civic conditions in Urbana and Champaign as a means of bringing before the students in landscape gardening practical and concrete material which will be helpful to them in their professional work. For the benefit of those who are not acquainted with the facts it should be stated here that Mr. Robinson is one of the foremost men in America in the field of modern civic art. He is the author of a number of the best books on questions of town and city improvement. Those interested in the city planning movement should read especially Professor Robinson's books "Modern Civic Art" and "The Improvement of Towns and Cities," published by G. P. Putnam's Sons, New York, and "Width and Arrangement of Streets -- A Study in City Planning," published by the MacGraw-Hill Book Company, New York.

JOSEPH CULLEN BLAIR,
Head of the Department of Horticulture.

December, 30, 1914.

FOREWORD

To give concreteness and practicability to their work, the 1913 and 1914 classes in Civic Design were required to make a study of civic conditions in Champaign and Urbana. The results of this study, tho it was necessarily somewhat superficial, are partly embodied in the observations on the following pages. Each student had assigned to him a theme to report upon; and these reports, subsequently discussed in the class room, are the signed chapters that follow.

In addition, the four regular students in the class of 1913 were each required to write a brief introduction to the reports; but as it would have been tiresome to repeat these, they have been thrown into a single chapter. This has been done by taking complete paragraphs from each and using nothing which was not written by the students. The introduction as given may be fairly considered, therefore, as a composite, representative of the united views of the Civic Design students in the class of 1913, and hence properly signed by them all. In the case of subsequent chapters which are signed by more than one student, the students themselves combined their independent theses.

It is obvious that to make an authoritative city plan for Champaign and Urbana was not the prime purpose of this study of the Twin Cities. But because it is realized that in the press of busy lives, and the inconsistency of personal interests, few persons have had opportunity for dispassionate and comprehensive study of the local civic problem, the theses have been brought together in the belief that they will prove at least interesting, and perhaps instructive and suggestive. If they contain, further, recommendations which commend themselves as directly valuable and helpful, the classes will be glad that they were able to do in this way a public service for the cities which house their alma mater and to which, thru all their lives, they will look back with affectionate tenderness.

A final word must be said as to the statement that the results of the study are only partly embodied in the observations on the following pages. This is because its most important result was upon the students themselves, in the quickening of their social consciousness and the broadening of their civic outlook. While this could not be written,

Foreword

perhaps the careful reader may be able to detect something of it between the lines.

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April, 1914.

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TOWN DATA

URBANA

I. Social.

a. *Character of the town*

The general character of Urbana is educational, it being the seat of the University of Illinois.

b. *Leading industries*

Urbana is the county seat of Champaign county, and has the court house. One of its biggest industries is the housing and feeding of the students and instructors who are connected with the university. The shops of the "Big Four" railway are located here. In addition there are three or four brick kilns, an iron foundry, several lumber yards, and the county poor farm.

c. *Population*

On account of the small number of manufactories, there are comparatively few of the poorer class of people. The foreign and black elements form a very small part of the aggregate population. The following table, taken from the United States Census Reports, shows the population. Fig. 1 shows the rate of increase in population in Urbana in comparison with that of Champaign.

Year	Total	Native	Foreign	Whites	Blacks
1850	210	not available		210	0
1860	1370	not available		1360	10
1870	2277	2017	260	2237	40
1880	2942	not available		not available	
1890	3511	3257	254	3445	66
1900	5728	5428	300	5657	71
1910	8245	7907	338	8110	135

II. Legislative.

a. *Charter*

Urbana is incorporated under the general Incorporation Act of Illinois.

b. *Ordinances*

Local improvements, such as sidewalks, paving, etc., are paid for by the owners of the abutting property, except from 5 to 10 per cent of the cost, which is assessed against the entire city, on the theory that all the citizens will help wear them out. For these improvements ten year bonds are issued, payable in installments.

As regards paving on streets where there are car tracks, the street car company pays for eight feet of pavement along the right of way.

The city may, at any time, order the telephone company to put all, or any, of its poles in the alleys or on the back lot lines.

c. *State laws*

Sectons 70-75 of Chapter 114, Illinois Statutes, provide that a railroad shall keep and maintain a safe crossing. If a crossing is deemed unsafe, the city may order the railroad to repair it; if this is not done in thirty days, the city has it done and charged up to the railroad, which has to pay a fine of one hundred dollars.

The Urbana park system is operating under the law of 1898, called the Hale Act. This allows a city to issue 3 per cent of its assessed valuation in bonds for general improvement purposes, and provides a .003 tax for maintenance.

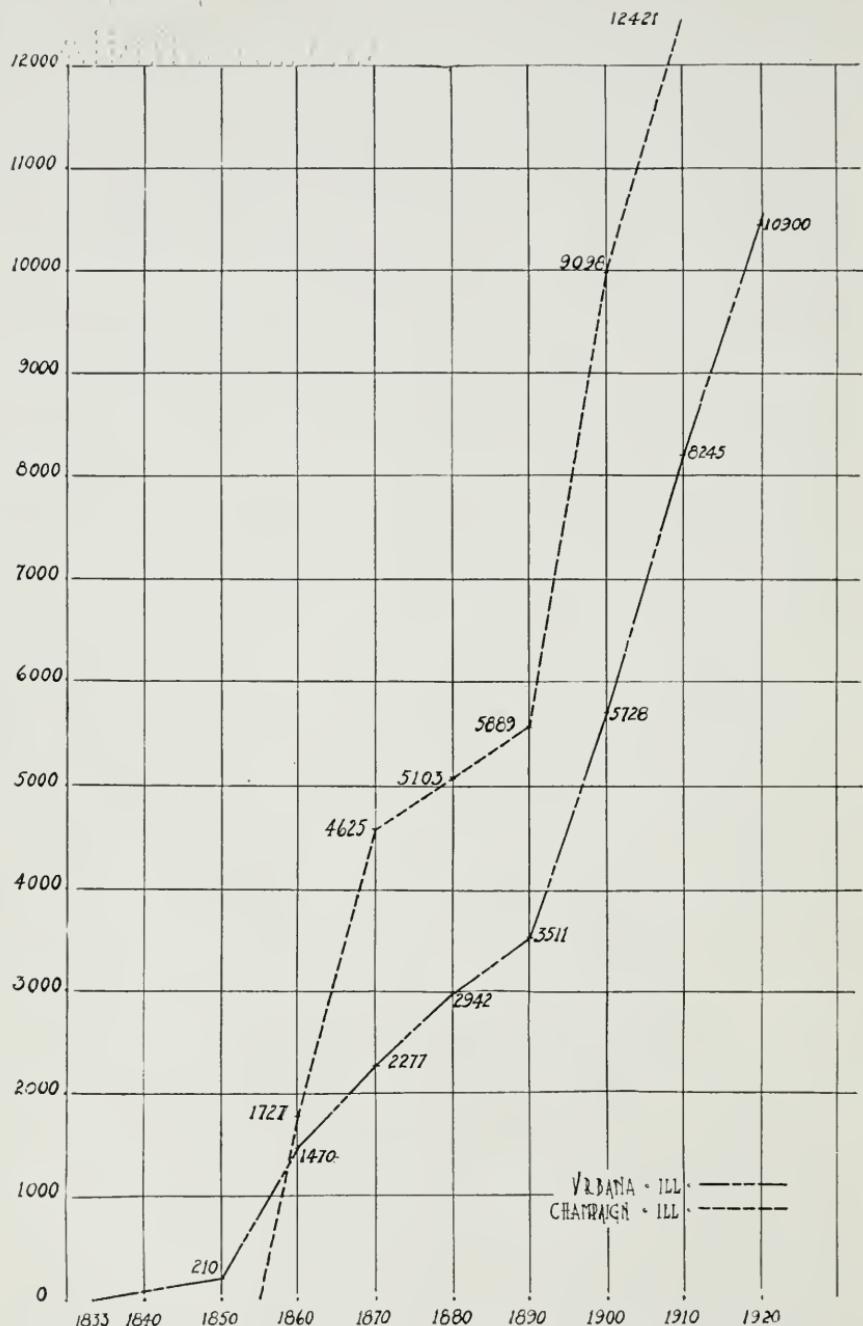


Fig. 1.— POPULATION CURVES, URBANA AND CHAMPAIGN, 1912

Town Data

III. Financial

a. Bonded indebtedness

The bonded indebtedness amounts to about twenty thousand dollars.

b. Borrowing capacity

A city may bond itself for not more than 5 per cent of its assessed valuation. Urbana has a margin of about eighty thousand dollars.

c. Tax rate

General taxes may not exceed 2 per cent of the assessed valuation. The assessed valuation is 33 per cent of the true valuation.

d. Public gifts

Judge Cunningham gave fifteen acres north of Crystal Lake. Mrs. Morris gave the land for Carle Park, about ten acres.

e. Franchises

The city street car lines have a twenty year franchise, given about five years ago.

The Illinois Traction System has a fifty year franchise, given about eight years ago.

The water company was given a thirty year franchise about one year ago.

The Bell telephone company was given an unlimited franchise; however, since the Supreme Court has held that a city cannot grant perpetual franchises, the Bell company has no franchise.

IV. History

Urbana was made the county seat of Champaign county in 1833.

The first court house was erected in 1837 on the site of the present building.

The first term of the County Commissioners' Court was held in June, 1833, in the house of Isaac Busey.

The first printing press in the county was established in 1852, in the court house.

CHAMPAIGN

I. Social

a. Character of the town

The general character of Champaign, like that of Urbana, is educational. There are a few manufactories, but not enough to overbalance the educational character. The manufactories tend to cause the larger foreign element.

b. Leading industries

In Champaign, as in Urbana, the principal occupation is the housing and feeding of the students and instructors of the university. The shops of the Illinois Central railroad, a tool factory, a piano factory, a mattress factory, and a structural steel plant are located here.

c. Population

Champaign is a younger town than Urbana, but shows a better rate of increase in population. A glance at the following table, which is taken from the United States Census Reports, and the curve on page xii, will show this clearly.

Year	Total	Native	Foreign	White	Black
1860	1727	not available		1696	31
1870	4625	3667	958	4502	123
1880	5103	4306	797	4830	273
1890	5839	4982	857	5587	252
1900	9098	8125	973	8694	404
1910	12421	11469	952	11662	759

Fig. 2 shows the rate of increase in population for the combined cities.

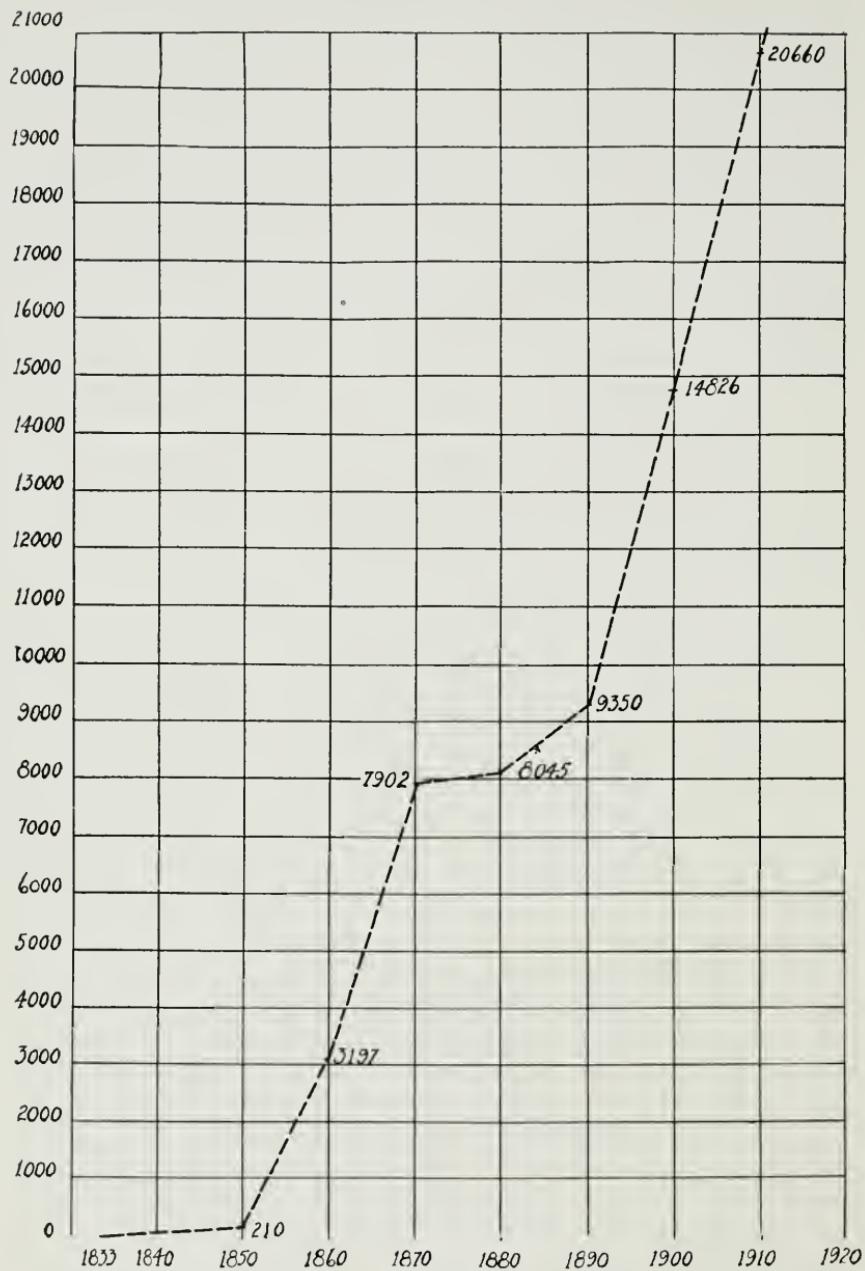


Fig. 2.—POPULATION CURVE, URBANA AND CHAMPAIGN COMBINED, 1912

Town Data

II. Legislative

a. Charter

Champaign is also incorporated under the general incorporation Act of the state of Illinois.

III. Financial

a. Bonded indebtedness

The bonded indebtedness amounts to about thirty-five thousand dollars. It is nearly all on account of the new street lighting system which is now being installed.

b. Borrowing capacity

The city may bond itself for not more than 5 per cent of its assessed valuation. The assessed valuation is 33 per cent of the true value.

c. Tax rate

General taxes may not exceed 2 per cent of the assessed valuation. The assessed valuation of Champaign is about two million dollars.

d. Public gifts

White, or West Side Park was given by Benjamin White.

Scott, or East Side Park was given by James R. Scott.

Washington Park was given by the Fairland Place land company.

Beardsley Park was given by George Beardsley.

The other twenty smaller parks were all given by private citizens.

e. Franchises

The franchise for the city car lines expires in 1920.

The Illinois Traction System franchise expires in 1940.

The water company's franchise expires in 1940.

The Home telephone company's franchise is for thirty years.

The Bell telephone company operates under the same conditions as in Urbana.

The electric lighting franchise for houses expires in 1925. There is no franchise for street lighting.

IV. History

When the Illinois Central built its branch from Chicago to the south, the intention was to go thru Urbana; however, since one man refused to give the right of way, the railroad was forced to build out about two miles west of Urbana. Here a station was erected and called Champaign. Since then a rapidly growing city has sprung up. The land on which Champaign is built was nearly all swampy land, and the mud holes had to be filled up before any construction work could be accomplished.

The first building was built by the Illinois Central in 1853.

In 1855 Urbana inhabitants tried to absorb the new village, but the citizens of the village forestalled them by organizing.

On July 24, 1854, the first Illinois Central train was run between Champaign and Chicago.

H. S. MUELLER.

NOTES FOR A STUDY IN CITY PLANNING IN CHAMPAIGN-URBANA

INTRODUCTION

Because of the prosperity of the university and of the surrounding farming community, Champaign and Urbana are continually growing. Steps should be taken to safeguard this growth, both from an aesthetic and from a practical point of view.

This does not mean that there is not much in the two cities which is already worthy of praise. The streets, as a rule, are wide and have been planted with trees. Insufficient, but large areas have been reserved for park purposes. On the other hand, the cities' sanitary systems are bad and should receive immediate attention. A city's first duty is to make itself a healthful place in which to live.

There are other problems of a more strictly city planning nature. Main avenues of traffic, for instance, are of particular importance, since they bind the community together and unify it. If these thru traffic ways are to be most efficient, the secondary or residence streets must be well planned. Unless the residence portions of the city satisfy the needs of its dwellers, there is necessity for a change of conditions. Where children are forced to do their playing in the streets, we can hardly expect them to develop into the type of men and women which the city needs. By the creation of neighborhood parks or by the use of a school ground for play area, the child may be given an opportunity not only for physical strength but for mental and moral as well. Parks, parkways, and open spaces in or about the city are not wasted area. They serve a moral and physical need, and prove a profitable investment in any city. The railroads and other means of transportation by which the Twin Cities are served also demand our careful attention.

Such are some of the problems, of concern to every citizen of Champaign and Urbana, to which the following pages have been devoted. They are taken up under five separate headings. Each is important to the general scheme, no one more so than another. Minute details could not be gone into here; the subjects are treated only in a general way.

In this study we have endeavored, finally, to keep in mind the

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present and future requirements of the cities. It will not be possible, nor would it be advisable, to make all the changes herein recommended in the near future. But we have suggested nothing which is ultimately impracticable. We have kept the future growth of the cities in mind, and have tried to promote this growth along artistic lines, in so far as general utility and practicability would permit.

R. W. HOFFMAN.
D. R. HULL.
OTTO SHAFFER.
W. L. TAYLOR.

SANITATION

The subject of sanitation is a most important part of a plan providing for a city's welfare. Even tho we have a civic center perfectly planned, with handsome buildings; even tho we have well paved streets lined on either side with beautiful homes, shaded by trees; even tho we have parks and playgrounds beautifully designed and well equipped; even tho we have a street car system serving the whole city; with all these desirable and essential things, we may still have a city impossible to live in safely. If our well paved streets have improper drainage and are not kept clean; if our beautiful homes are not supplied with pure water and are not provided with proper sewerage connections; if our parks and playgrounds are not drained; if we permit smoke and gases from our public buildings, manufacturing establishments, or our homes, to pollute the air; if these things are permitted, we shall have a city endangering the health and lives of its inhabitants.

The four main headings under which sanitation will be discussed are water, food, air, and wastes. Because of its dependence upon the other three parts, the subject of air will be considered last.

The cities of Champaign and Urbana are supplied with water of good sanitary quality. Its physical quality is not so good, owing to the presence of iron. The water is supplied by the Champaign and Urbana water company. It comes entirely from drilled wells, nineteen in number at present, which are sunk to a depth of 150 feet or more. Additional wells are drilled, from time to time, as they are needed.

Each well is equipped with an electric pump which raises the water into reservoirs, from which it passes, after settling, into a second set of reservoirs. From these it passes thru a specially designed filtration system which removes the iron. After passing thru the filters it is pumped into the distributing system. At present the filtration system is not working very efficiently. However, improvements which promise to produce good results have been worked out and adopted by the company.

The Illinois State Water Survey reports that, altho the water is hard, it compares favorably with other Illinois ground and surface water. The supply seems to be ample, and, up to the present time, there has been no trouble in finding water when new wells are drilled.

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The most urgently needed improvement is an extension of the water mains into those districts which are not supplied. This will help to do away with the open well, which, in cities, is always a menace to health. The Twin Cities are also very much in need of more drinking fountains. These ought to be placed in the parks and in the business districts. As the cities pay nothing for water used in public buildings or for drinking places, the only expense of this improvement would be the cost of the fountains and of placing them.

Food, in its relation to sanitation, is a very important item. The vehicles in which food is brought to the city; the warehouses within which it is stored after arriving; the retail stores thru which it passes; the methods of handling, packing, and delivery; all are vitally connected with a clean food supply. It is necessary that not merely one but all of these various stages of the journey of our daily bread from the producer to our kitchens should receive careful attention. If any one part of the process is neglected, the care exercised in the other parts is either partly or totally destroyed.

In this respect, conditions in the two cities are fairly good. There are, however, some merchants who are very careless as to keeping store-rooms and back yards clean. A trip thru the alleys of either business district will convince even the casual observer that much could be done to improve their appearance. In the heaps of rubbish, ashes, broken boxes, and even decaying fruit, there is plainly a menace to the health of the community. Flies swarm about and pass in and out of the stores, carrying a burden of germs which may spread disease over the entire city.

A more rigid inspection and a stricter enforcement of clean up laws should be insisted upon. After all is said, the city remains directly responsible for such conditions. The duly appointed health officers should see to it that everything in their power is done to keep the food supply clean. Champaign has a health officer. His salary is \$15 per month. He is allowed an assistant who receives \$2 per day. It is not reasonable to expect a trained man to do much when he is paid such a small sum as \$15 per month, and it is not reasonable to expect a man who will work for \$2 a day to be vitally interested in or capable of doing such important work as a health officer's assistant ought to do.

The collection and disposal of waste is the largest item connected with sanitation and is one in which every citizen is directly interested. There are two main divisions in this part of the problem: solid wastes,

Sanitation

and liquid wastes. Under solid wastes come ashes, rubbish, and garbage; under liquid wastes come storm water and sanitary sewerage.

The problem of waste disposal grows rapidly in seriousness as population becomes more dense. Small towns and cities, located in an open country, are little troubled about their wastes. When population increases and towns become more numerous, the waste problem becomes more serious. It is no longer fair or safe to cart rubbish and garbage into outlying districts and dump it, or to turn sewerage into the nearest stream and let it pass down with the current. We must consider the rights of the neighboring towns. They may be forced to use, for drinking purposes, water from the very river we have polluted with our waste. The cows which supply our milk may drink from the stream into which we empty our sewerage.

The easiest way to dispose of solid wastes is to cart them off and dump them. Up to a certain point that is not bad practice. If the ashes, or rubbish, is kept free from garbage, dumping into holes or swamps may eventually improve the general appearance of the neighborhood. In Lowell, Massachusetts, the city has for years been dumping rubbish upon unsightly flats along the Merrimac river. Along one side of the river the flats are filled in and the area of made land is used as a playground. The other side is being filled and will be used for the same purpose. Of course, careful inspection prevails, and only solid, non-decomposable wastes are dumped.

Champaign and Urbana are using the dumping system. Many lots which were below grade have been filled. At present, regular dumps are located, in Urbana, northeast of the business district, on the lowland between the Big Four shops and the brick-yard; in Champaign, in the district north of the business section, near the Johnson piano company's plant. Both these dumps are reserved for solid wastes and are kept in good sanitary condition. There is plenty of room in these places to care for the cities' waste for many years to come.

The present need is more thoro collection. The back yards and alleys thruout the residence district are fairly well kept. There are, however, enough exceptions to warrant a clean up. At present some of the worst offenders are among those whom we would least suspect. The back yards of Fraternity Row, which are up against the "Boneyard," are more in need of a clean up than those in Bonnerville.

Moreover, streets and alleys are not kept clean. On Neil street, one of the most used streets of Champaign, there is almost always a mass of waste-paper and other rubbish lying in the gutters. In an

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alley within a half block of the intersection of Neil and Church streets, the heart of the business district, and within ten feet of the sidewalk, there is a cellar-window area-way completely filled up with sidewalk sweepings, old newspapers, and other rubbish.

Two other area-ways further back are nearly filled. On a recent trip of inspection in this vicinity the writer found, within forty feet of the sidewalk, a garbage can overflowing with a mixture of garbage, broken crockery, tin cans, and other rubbish. A dead rat lay in the alley, and several live rats scurried off when they heard the sound of footsteps. Less than two blocks from the same corner may be found a stable, the litter from which is piled up within three feet of the sidewalk. The billboard which screens it from view does not, however, hold back the odors which permeate the air for a half block in every direction. Less than three blocks from the Illinois Central depot may be found stables, built almost out to the sidewalk, from which a stifling odor comes, making it distinctly unpleasant to the passer-by. Yet hundreds of citizens and students must pass there every day on their way to the banks and stores. Other instances could be quoted, but enough has been said to show that reforms are needed.

The city should insist upon more thoro street cleaning; it should provide suitable receptacles, conveniently placed, for papers and other rubbish and should keep them emptied; it should insist upon clean back yards and clean sanitary conditions about stables. If property owners as individuals cannot be made to clean up their places, the city should do the cleaning. It must be done because the welfare of all the people is dependent upon the action.

The disposal of garbage is more difficult than the disposal of rubbish. Dumping is a nuisance, is unsanitary, and destroys property values. There are, however, various means of disposing of garbage in a sanitary way. It may be fed to hogs, buried, burned, or the grease may be extracted by putting it thru the reduction process. For small cities and towns the first two methods, possibly the third, are best. In Champaign and Urbana, garbage is collected by scavengers, under contract, and is buried. This is a very good solution of the problem. Urbana is now considering installing a plant to burn its garbage.

To give the best results thru burying it, garbage must be kept free from all rubbish, or solid wastes of any kind, which will not decay. The most urgently needed reform at present is, then, to require every householder to keep separate cans for garbage and other solid wastes and to insist upon systematic and regular collections from every house.

Sanitation

The disposal of liquid wastes is perhaps the most serious division of the whole sanitation program. This is because an elaborate and often very expensive system of underground pipes is required to carry the wastes to a place where they may be safely disposed of. There are two kinds of liquid waste: storm water, and sanitary sewerage.

The Twin Cities have separate systems of disposal for these wastes and a plant fairly sufficient, as far as it goes, to purify the sanitary sewerage before it is turned loose into the Salt Fork. The disposal plant, which consists of two settling tanks located back of the Big Four railroad shops in Urbana, is too small for the present supply of sewerage, and as soon as the districts which are yet to be connected begin to turn their sewerage into it, it will be entirely inadequate to meet the demand.

There are several places in both cities where sewerage runs into the "Boneyard," either directly or indirectly thru topping of storm water sewers. There are districts in Urbana where privies are still in use. In some instances open wells and privies are within a short distance of each other.

The privies must go. There is no excuse for their use in a city having sewerage facilities. They are a menace not only to the people using them but also to the whole community, which may suffer because of a contagious epidemic caused by them. Open wells, too, should be eliminated. Of the four deaths from typhoid fever in the two cities during the past year (1913), three were due directly to the water used from open wells.

The cities' most urgent needs, as regards sewerage, are to prevent all sewerage from entering the "Boneyard"; to fill up all privies and forbid their use in the future; to extend sewers into all districts as yet unprovided for; and to increase the size of the disposal plant.

The division of "pure air" has been left until the last because it is dependent to a great extent upon the other divisions of sanitation. The amount of the air supply and its sanitary condition are important to the health of the city. The supply must be abundant and pure, in the heart of the city as well as in outlying districts. To be pure the air must be free from dust, smoke, gases from manufacturing plants, and from the odors that arise from unclean stables, swamps, unclean back yards, and alleys.

The general direction and width of streets, the size of street trees, the height of buildings,—all have a direct bearing on a city's air supply. If streets are narrow and crooked (especially when tall buildings are

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placed at the turnings), or if street trees are planted too closely, there will be parts of the city which do not receive enough pure air. Urbana and Champaign are fortunately located where they have an abundant supply of pure air to draw upon. There are no natural handicaps to overcome, and if they do not receive a sufficient supply, it is due either to their own carelessness or neglect. There are, however, conditions existing, either thru carelessness or thru ignorance of their serious harmfulness, which should be remedied.

Soft coal is almost the only fuel used in the cities, and clouds of smoke may be seen at almost any time. Manufacturing plants are the worst offenders, tho stores, public buildings, and residences each contribute a share. The question is serious enough to demand attention, and smoke ordinances should be enforced requiring offenders to install either better types of drafts or smoke consumers.

Very little street cleaning or sprinkling is done; consequently, during the greater part of the year, every breeze stirs up clouds of germ-laden dust which blows into houses and stores and must be breathed by the passer-by. When it rains, the pavements are covered with mud. A great deal could be done to remedy this condition if systematic, regular street cleaning were inaugurated. Hundreds of vagrants come to the Twin Cities every year, some of them honestly in search of work, who might be employed in this way to the advantage of all concerned. This is especially true of conditions prevailing during the summer months, when plenty of such assistance is available. Careful utilization of such resources not only promotes improvement in sanitation, but serves to remedy another aspect of social welfare—that of caring for the unemployed.

The "Boneyard" stream is a serious offender against pure air. During much of the year the flow of water is not large enough to flush the stream-bed properly, and, as a result, deposits are left which decompose and create a stifling, almost nauseating, odor. This stream is not intended to carry sanitary sewerage, yet in two places, one in Champaign and one in Urbana, sewerage was found flowing into it. For a number of years there has been an attempt on the part of some citizens to secure a conduit down the length of the stream and then to cover it over. Opposition to this plan arises principally because of the cost. The mere cost in dollars should not be permitted to determine the question. Should a serious epidemic arise as a result of the condition of the stream, the loss to the cities, both in dollars and in the welfare of their citizens, would far exceed the cost of a conduit.

Sanitation

There is need of a more fully equipped health department. Champaign sets aside about twenty cents per capita for health purposes; Urbana, about five cents per capita. In order to carry out thoroly all the important details connected with a city's sanitation, it is necessary to have trained, competent men appointed, and to pay them enough to enable them to put in their full time and thought on working out and improving sanitary conditions. The health of a city's inhabitants is of the highest importance, and should be most carefully protected.

OTTO SHAFFER.

RAILROAD TRANSPORTATION

In the study of a city plan we find that the transportation problem is of vast importance; that the relation which a city may have with the outside world by steam, electric, or water route has much to do with the condition of that city.

Champaign and Urbana are fortunate in having within their limits three steam and two electric lines. These roads, with the exception of the Wabash and the new interurban, are thru lines having a large freight and passenger service. And a further point of great advantage to the Twin Cities is the location in them of the Big Four and Illinois Central shops. Those for the Big Four are located northeast of Urbana, occupying a section of land which is so cut off by railroads, and in itself so low, as to be undesirable for residence purposes. The prevailing winds are such that the smoke from these shops is not objectionable. The Illinois Central shops, located well to the north of Champaign, are also favorably placed with reference to the prevailing winds. A large area suitable for workingmen's homes is available near these shops.

With all this value which we have reason to attach to the steam and interurban lines, together with the praise which they should justly have, we find that they are not without some conditions which are bad,—conditions which we as citizens should try to remedy, if we are to keep pace with the demand for better things.

First may be mentioned the duplication of passenger stations for the steam roads in each of the two cities. Poorly located and inefficient as the stations are, this duplication is a needless expense to the roads and trouble to the traveler. Moreover, no thought has been given to the comfort of travelers during inclement weather (of which we have no small amount), poor accommodations being offered for those entering and leaving the cars.

A union station in Urbana on the site of the present Wabash station could be used by both railroads and also by the interurban cars. This would greatly decrease the expense for each road and make the service much more satisfactory. At some time in the future a Mall might be opened up from the courthouse directly north, giving a long vista thru to Crystal Lake Park, and passing the union station and other public buildings which might face upon the open area.

Railroad Transportation

In Champaign a union station could be placed to advantage on Washington street at the northeast corner of the old Illinois Central shop grounds. The Big Four and Wabash tracks for passenger service could cross the Illinois Central at this point and curve back again to the old tracks within a short distance. The interurban and street car tracks might also be extended to pass thru the station or in front of it, making one which would be centrally located and more efficient in every way than the present arrangement.

The freight stations of the steam roads do not present so serious a problem as do those for passengers. The freight station of the Illinois Central in Champaign is perhaps the most objectionable, since it necessitates the location of freight yards across important traffic streets. A station north of the Big Four tracks and west of the Illinois Central tracks would be advantageously placed. Ample ground could be obtained here for freight yards and exchange purposes, and only a short haul would be necessary to the business and factory districts. In Urbana, the present location of the freight depots, if they were combined, would probably satisfy all needs for the future. Under the present conditions, no single road has sufficient traffic to justify the installation of modern freighting conveniences, but by combining the freight houses of the Twin Cities much expense in handling and transferring freight might be saved.

An objection which is brought forcibly to our daily notice, and which cannot be emphasized too strongly, is the railway crossing of streets at grade, particularly along the Illinois Central tracks in Champaign. Here the large amount of east and west city traffic is cut by the railroad tracks, to the great delay of street car, interurban, and general street traffic. At a few street crossings the street has been lowered to pass under the tracks, but this condition is not entirely satisfactory. It is undesirable to carry the railroad over the street by a viaduct. Elevated tracks greatly decrease the value of property facing on the street, which must usually be lowered, and the resulting street grade is dangerous.

By depressing the Illinois Central tracks from Green street, Champaign, to a point north of the Big Four tracks, we could allow the street crossings to remain at the present level and still be unobstructed by the railway traffic. A construction of this sort would also change the grade of the Illinois Central tracks from those of the Wabash and Big Four, thus removing the dangerous railroad crossings. Lowering the tracks would also make possible the street plan as proposed, allowing

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Main street to be carried over the tracks unobstructed by them, and permitting a plaza in front of the station, with an attractive setting for various public buildings. By proper construction and effective plantings this space above the lowered tracks could be made an attractive feature of the city.

The right of ways for different roads entering the cities, so far as their tracks are on the surface, should be planted to screen out the undesirable features. The tumble-down shack and the gaudy billboard are at present the most noticeable features of the landscape, with an occasional dumping ground to add a bit of interest. Billboards might at least be regulated, if not entirely removed. Warehouses and factories are shabbily constructed, no thought having been given to make them attractive. This may be done by plantings and by more careful construction. In short, the various approaches to the Twin Cities should, in a degree at least, represent the civic pride of those cities.

D. R. HULL.

THE ELECTRIC RAILWAYS

The factors which enter into the planning of a successful city railway system, adequate to the needs of the people, may be said to have been largely determined by usage and past experience. Every city has, however, special peculiarities which it must study, and special problems which it must try to solve so as to create a well-balanced, efficient, and economical electric railway system.

The following table with its approximate figures will serve to convey some idea of the local electric railway situation, as now existent:

Item	Twin Cities	Champaign	Urbana
Approximate population	21,000	12,000	9,000
Approximate area in miles	10.0	4.5	5.5
Electric railway in miles	12.3	7.4	4.9
Double track, percentage	13.8	7.4	23.2
Used by interurban, percentage	40.4	39.5	42.0
Used by interurban only.....	0.28	0.46	none

Because the Twin Cities have grown from east to west rather than from north to south, the main lines of traffic are in an east and west direction joining the two towns. The cross-town lines — that is, the north and south lines — are of secondary importance only and are developed as such.

The local problem resolves itself into five questions: First, the necessity of establishing a direct route or connecting link between the two cities. Second, the handling of the congested traffic in the business section of Champaign. Third, the establishment of a suitable terminal in Urbana. Fourth, a means of crossing the Illinois Central railroad tracks at University avenue otherwise than at grade. Fifth, the establishment of better or new service in the rapidly developing sections of Champaign and Urbana. We shall take these up in order.

While the Twin Cities are mutually independent, it is essential to have a direct means of communication between the two business sections. There are two reasons for this: first, since time is a factor in every phase of life, it would prove an economy,— an economy of time, especially to those having business interests in both cities. Already the amount of thru traffic from business center to business center

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alone is a sufficient reason for establishing this direct route. The natural route to be followed is the thru traffic way, University avenue. This new route would mean a gain of about fifteen minutes in making the trip between the cities. Along with economy of time it would serve another and very important purpose. It would benefit a stagnated district southeast of Crystal Lake Park, now dependent on private carriers and foot traffic.

The second problem is the handling of traffic in the business section of Champaign. This problem is due to the ill-planned intersections of Main, Neil, and Church streets, and may be in part alleviated by a rearrangement of time schedules and in part by traffic regulations. Four car lines, not including those of the Illinois Traction System, center in the business district. As the schedules are now arranged, three cars meet every twenty minutes at this intersection. When an interurban car is making a turn at these corners, the congestion, bad enough with only the three cars, becomes much more serious. This very often happens. Street traffic is held up and general confusion and disorder result.

The congestion of the pedestrian traffic is perhaps more marked than that of vehicle traffic, especially at the closing time of stores and during the shopping period. At rush hours, the meeting of the three cars draws a large group of people who obstruct traffic because of the limited sidewalk space.

A combination of three changes would remedy this fault. First, the provision of a suitable waiting station is a real need. At present the people while waiting for cars seek the Tucker drug store in such numbers that all of the people cannot be accommodated, and in case of rain serious inconvenience is given to many. A well designed waiting station would be an addition to the business district in an aesthetic way and would relieve congestion. Second, the car schedule should be such that while cars would be expected to meet at these streets, they would not wait for one another. Passengers who missed the connection would be comfortable in the waiting station. The street traffic would not then be blocked, and, as compared to present conditions, there would be about one-third of the number of people waiting for cars. Third, there should be constructed an isle of safety of elliptical form, one end of which would be centered on Main street while the other would center on Church street; this provision, in conjunction with the regulations governed by it, would establish rotary traffic and materially aid in relieving congestion. The third of these

Electric Railways

remedial features,—that is, the establishment of an isle of safety, along with a proper arrangement of street railway time schedules,—would offer a satisfactory solution of the vehicle traffic problem, while the waiting station would take care of the obstruction to pedestrian traffic. Thus the congestion in the business section of Champaign would be taken care of in the simplest and most efficient manner.

With reference to the third problem, the establishment of a suitable terminal in Urbana, the several electric lines connecting Champaign and Urbana have their respective termini at the intersection of two principal streets in the heart of Urbana's business section; in fact, four lines in Urbana, those from the east, the north, the west, and the south, terminate at this intersection. Since there is a congestion and confusion caused by the switching of cars at this terminal point, the problem of elimination may best be solved by the establishment of a loop located in the corner of the northeast block, directly north of the courthouse. Here there are already situated two interurban stations which, improved, would form a nucleus around which to build the loop. At present the carrying out of this suggestion is not a necessity, but as business increases so will congestion increase in a direct ratio, and property values as well. Thus the problem has vital importance even now.

The fourth problem, that of the grade crossing of University avenue and the Illinois Central railroad, presents probably the most deplorable defect in the present railroad situation. Here traffic is being held up at intervals to the exasperation of the traveling public. These delays impair efficiency and economy of operation as well as keep the public in constant jeopardy. A subway at this point seems to be the most practicable means of alleviating this condition. Preliminary steps have been taken in this direction; but at present the matter seems to be indefinitely held up, due to the necessity of acquiring abutting property. The practicability having been established, the aesthetic side will not be forgotten, it is hoped.

Coming to the fifth of the named problems, we find growth in Champaign taking place in a southwesterly direction toward the higher ground, where no obstacles interfere, as do the railroad right of ways on the north and east, and the factory section on the west. Already there is a marked tendency to this movement. The development has preceded proper carrying facilities, and it is important to give service to this outlying district. This may be done by extending the car line south on Prospect avenue, as far as the Country Club. If a certain number of cars were run over the interurban tracks, the additional

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service would assist in promoting the development of that section. Similarly, Urbana is growing to the south, and daily the need of additional transportation facilities is there making itself manifest. The development of a first-class residence section in this direction is well under way, and the time has come for efficient and properly located electrical railway extensions.

To sum up the whole situation, there is much to commend in the car system of the two towns. The cars are of a good type and are large enough to fill all present requirements. The double track laid during the past year has improved the service remarkably, and a like impetus is looked for in the new interurban station, located not altogether fortunately, yet in such a way as to eliminate interurban traffic thru the main business streets. With the additional features suggested, improved from time to time, as with double tracking and with the closer schedules which increasing population and business will demand and justify, and with the complete installation of modern equipment, the local railway system will become a common carrier wholly adequate and well adapted to the needs of the Twin Cities.

CHARLES H. DIGGS.
CHANCE S. HILL.
WILLIAM HORNAL.

THE MAIN TRAFFIC STREETS

Much can be said in praise of the main traffic streets of the Twin Cities. By the main traffic streets I mean those streets of the business and residence sections which afford direct communication between any two important points and on which traffic is the heaviest. They may lead from town to town, thru the residence neighborhoods of either city, or from either town to the outlying districts. All are well paved and have good grades, and almost all, except a few in the business district of Champaign, are sufficiently wide to accommodate the traffic on them.

Those streets of Champaign which need widening are Main street from Neil to the Illinois Central railroad tracks, and Neil street from the Big Four railroad south to University avenue. Prohibitive cost may render an immediate widening impracticable; however, as the present structures along the two streets are old and inadequate for present needs, they will soon have to be rebuilt, and the process of widening can start then.



Fig. 3.—ENCROACHMENT ON SIDEWALK SPACE AND LOW AWNINGS IN CHAMPAIGN'S BUSINESS DISTRICT

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Fig. 4.—THE NEED OF LOWER CURBS AND OF STREET CLEANING IN THE CENTER OF CHAMPAIGN'S BUSINESS DISTRICT



Fig. 5.—A STREET JOG

Main Traffic Streets

The roadway on these streets should be at least fifty feet wide, and there should be a fifteen foot sidewalk on each side. The present width of sidewalk and pavement are respectively ten and thirty-six feet. This is entirely too narrow. We also find poor building and sidewalk levels. With the street grade and width established, a sidewalk elevation twelve inches above that of the roadway should be set. Then, with these elevations established, we shall have a basis upon which to determine the building level. A prohibition of encroachment on the sidewalk space would greatly facilitate in establishing the ground floor level of buildings. This level should be close to that of the sidewalk.

Examples of bad building levels are those of Robeson's department store on Neil street, and of Bradley's confectionery on Main street. Here the sidewalk is about two feet higher than the roadway, and the ground floor is about two feet higher than the sidewalk elevation. It was necessary to place a stone step in the roadway for ascent to the sidewalk, and two more steps on the sidewalk lead to the ground floor. In each case roadway and sidewalk are narrowed considerably. In fact, the walk area in front of each of these establishments is not more than ten feet wide, which is entirely too narrow for that section of the city.

Only a few doors in either direction from these poor examples can be found examples that are good. At Swannell's drug store corner, and in front of Mittendorf and Kiler's, there are fine examples of sidewalk and building elevations. Here the sidewalk extends from the curb back to the building line, and all the available width is used for walking space.

Along with the above conditions we find poor junctions at some of the corners. The corner at Church, Main, and Neil streets offers an example. Here is the busiest corner in the Twin Cities, and also the terminal point of all urban and interurban cars. Church and Main streets do not intersect as one, and at the junction a sharp corner is formed, making a bad turn for street cars and traffic. The situation is dangerous both for passengers on the cars and for pedestrians. Only a few months ago a very serious accident happened here. A street car became uncontrollable in the congestion, and as a result a young woman was seriously injured. Some means should be taken to prevent congestion and avoid future accidents.

There are also other conditions which need attention. In both towns the advertising is uncontrolled. The merchants are permitted to erect awnings and electric and other signboards that project from

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the buildings across the sidewalk. Many of the awnings are too low, so that it is often necessary for the people to stoop when passing under them. These low erections and projections narrow the available width of the sidewalk, and thus further congestion. A regulation of some kind should be adopted to prevent this nuisance. It may be in the form



Fig. 6.—UNCONTROLLED ADVERTISING

of a city ordinance to forbid the erection of any structure projecting into the public way. All means of advertising should be either inside the building or directly on the front of it.

Another bad feature found in the Twin Cities is the crowding of the streets and sidewalks with telephone and electric poles. We also find drinking fountains and waste paper barrels placed indiscriminately

Main Traffic Streets

along the streets. Recently, at Swannell's corner on Hickory street, not fifteen feet apart, were found a drinking fountain and an overflowing garbage barrel—not a splendid combination so close together. The fountain was a good feature and in itself well placed. Here it was convenient for pedestrians, and out of the way of traffic. The garbage barrel, unsightly and unsanitary, was wholly out of place.

From the business district we pass to the residence neighborhood. Here the main traffic streets are in much better condition. Grading, paving, street widths, parking and lawn areas, are almost ideal. The sidewalk levels are fairly good, but their width in some districts, es-



Fig. 7.—THE PRESENT TERMINUS OF MAIN STREET, CHAMPAIGN, PRESENTS NO SERIOUS OBSTACLE TO THE STREET'S EXTENSION

pecially around the university, is insufficient. Here the traffic at all hours is heavy and congested, still we find no sidewalks more than six feet wide. In many cases they are only four feet wide. At present, it is often necessary for the people in passing to tread upon the lawns and parking. Some remedy should be adopted, and I think the addition of a foot or two to the width of many of the walks would materially aid in overcoming the congestion, and enable traffic to move more rapidly and easily.

In the leading residence streets we find comparatively few telephone poles and wires. They are generally placed along the back lots, or

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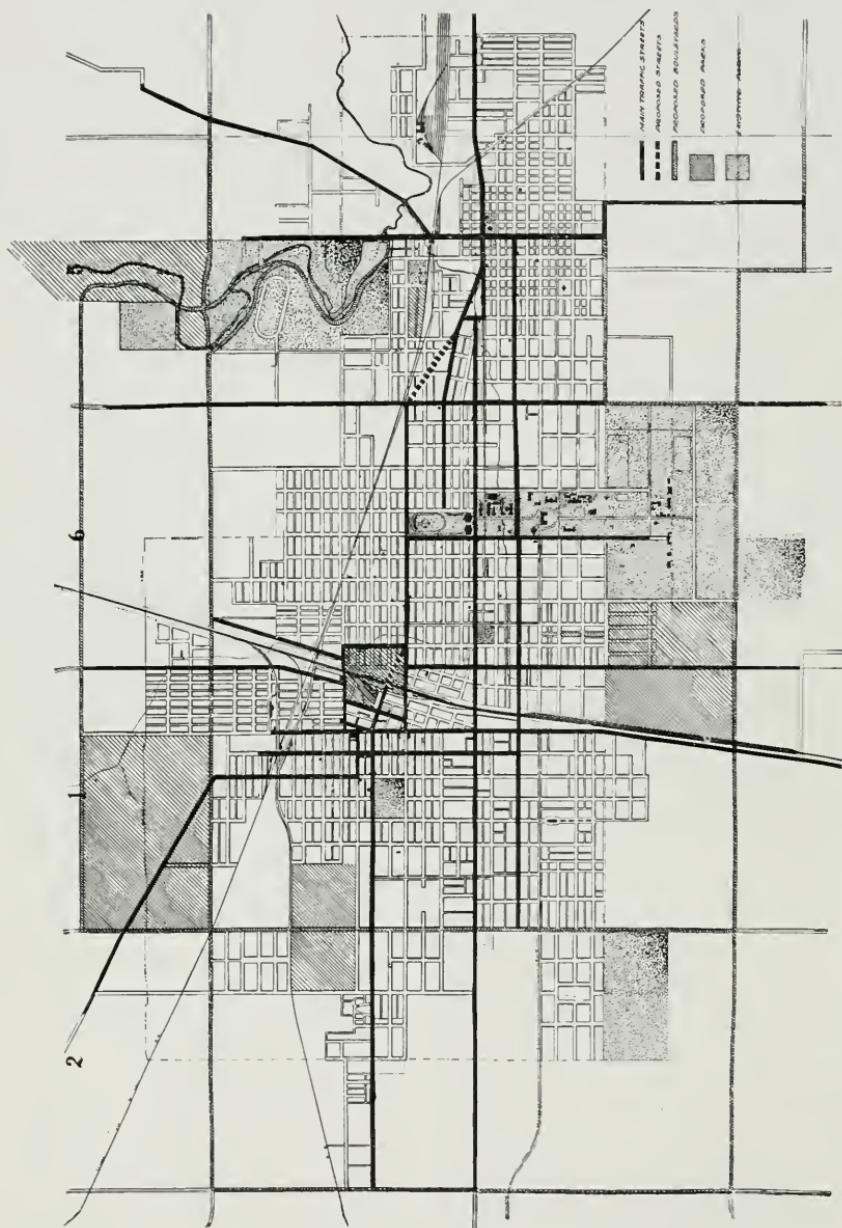


Fig. 8.—MAP OF CHAMPAIGN AND URBANA SHOWING TRAFFIC STREETS, AND EXISTING AND PROPOSED BOULEVARDS AND PARKS

Main Traffic Streets

else the wires are underground. This system should be used thruout the Twin Cities.

On examining the main traffic streets, we find no thru connecting routes from Champaign to Urbana. The present channels of main traffic have almost adopted themselves. By cutting thru a few streets to form connections, this system can be completed and improved. In Champaign I should suggest the extension of Main street thru to University avenue. From here east we have a direct route thru University avenue to Lincoln avenue. To gain direct passage from there to the business district of Urbana it is necessary to make another extension, and I should advise a direct connection from University avenue and Lincoln avenue to Orchard and Main streets. With these extensions the shortest route between the two cities would be provided for without the condemnation of any valuable property. Thus no great expense is attached to this proposal. Here we would have a direct short route and the saving of much time in travel; also by these extensions general traffic would be kept out of some of the most desirable residence districts.

Another needed extension is one from Urbana to the university along Springfield avenue. To obtain this route it will only be necessary to make a cut thru the yard along the north side of the old Urbana High School building, and to widen Railroad street. This proposal will not involve any expense for the purchasing of property. Also the heavy traffic will be centralized, and taken from the more residential streets.

On the accompanying map (Fig. 8.) all of these proposed changes, and the circulation of traffic thruout the Twin Cities, can readily be seen.

R. W. HOFFMAN.

SECONDARY STREETS

Secondary streets constitute by far the largest number of all streets. They give to the cities their general character and individuality. They are the streets on which most of us live, and therefore they affect most intimately the lives of the largest number of people. Champaign and Urbana are typically "home" cities. When we think of them we think unconsciously of their residence streets.

In order to consider these with a measure of completeness, it is necessary to discuss separately the different kinds of streets, and the tree planting on the streets. The latter subject will be taken up in another chapter.

Not all streets, it will be observed, are equally important from a traffic viewpoint. We have, then, first, the strictly residence street, narrow and quiet; second, the street with car line but little vehicular traffic; and third, the street having a car line and serving thru traffic purposes. In this chapter we shall consider only the first.

There are some features of the residence streets of Champaign and Urbana of which the citizens should be justly proud. These stand out



Fig. 9.—VIEW OF A TYPICAL RESIDENCE STREET, SHOWING ABSENCE OF FRONT FENCES
[24]

Secondary Streets

strongly, and are powerful factors making for the city beautiful. For example, one observes few division line and front fences. Their absence gives an air of greater freedom, adds greater apparent width to the street and more expanse to the lawns.

A second factor tending to beautify cities, and generally well observed here, is the establishment and observance of building lines. Probably no other factor adds so much to the appearance of a street as the location of the houses. When set back and in alignment, the street gains an expansiveness and majestic beauty not easily acquired by other means.

A third factor, which lends to efficiency perhaps more than it adds to beauty, is the widening of residence streets where these approach business thorofares. A good local illustration of this is offered by Park at Neil in Champaign. Absence of parkings results at such a place in increased paving, which in turn may care occasionally for overflow traffic from congested business streets, but which is always of value in enabling the merchants whose stores abut it to load and unload delivery wagons elsewhere than on the main traffic thorofares.

There are, however, numerous existing conditions observed on the residence streets of the Twin Cities, which, detracting from rather than adding to the cities' beauty, might readily be corrected. The following are examples.



Fig. 10.—THE TYPICAL CARRIAGE LANDING OF CHAMPAIGN-URBANA

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1. Enlarged carriage landings on parkings. Many of these landings are far too large to serve any useful purpose. The glare of cement is displeasing; doubly so, when it displaces lawn unnecessarily.

2. In some portions of the cities it has become the practice to erect tombstones of concrete for hitching posts on parking landings. The appearance of all such streets would be vastly improved by the removal of these unattractive objects.

3. Electric light and telephone poles are unsightly. It is much



Fig. 11.—POLES AND WIRES, AND A SIDE PARKING THAT IS WORSE THAN USELESS

better to place these on the rear of the lots, or still better to bury the cables.

4. Neglected parkings are rather common. They detract not only from the appearance of the individual lawn, but also from the beauty of the entire street. They are most numerous and most neglected in front of vacant lots. To remedy this condition, I suggest concerted action of property owners along a unit of street. One laborer employed by them will keep the parking in first-class condition thruout the season at a price varying, probably, from 15 cents to 17 cents per front foot.

5. The condition of walks and bridges over Silver creek is, in general, not good. In some instances these crossings are actually dangerous.

Secondary Streets



Fig. 12.—A SIDEWALK BRIDGE ON AN "IMPROVED" STREET

Frequently, too, they are elevated unnecessarily, resulting either in abrupt street grades or in long approaches over filled ground.

6. The general condition of Silver creek is bad. In some places I found weeds and underbrush growing luxuriantly, and in others I found quantities of garbage dumped upon its banks. As long as the creek remains an open waterway thru the town, its sanitary condition should be jealously guarded.



Fig. 13.—A SIDEWALK JOG

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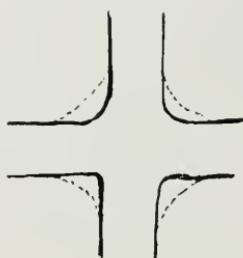
7. Sidewalk grades at street intersections may be much improved by giving more attention to grade along the property line. Frequently the walk from intersection to street curb is unnecessarily steep, and during rainy and freezing weather becomes dangerous.

8. Parking widths should never be less than three feet. One was found that measured but ten inches. This narrow ribbon of grass seldom does well; it serves only to emphasize the narrowness; but last and most important, it makes no provision for street trees.

9. Numerous instances of low steps, sometimes as little as three inches, were observed in private walks where they leave the public walks. These steps are due to grading of the lawn. They should be avoided wherever possible. They are inconvenient, and may be dangerous.

10. Public sidewalks should align. Some existing ones do not.

11. Many curb corners are very sharp, particularly where streets do not align. Traffic would be greatly facilitated if a longer corner radius were used, for example:



Finally, I append a list of proposed changes which may be grouped as "recommendations":

1. Uniform cement walks.

2. Greater radius at street corners to facilitate traffic, and to lessen danger; for example, at Washington avenue and the Illinois Central tracks, Champaign.

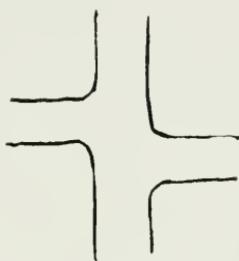
3. Grading at street curbs. In some instances a ragged overhang of earth was observed. This not only detracts from the appearance but washes badly during storms. As a result, streets, even when paved, are muddy during stormy weather and dusty when dry, and sewers are constantly overburdened.

4. Establishment of minimum width of parkings at three feet.

5. Better sidewalk alignment. In some cases there is no apparent reason why walks do not align; in others, trees interfere. A tree which

Secondary Streets

is poor, either in shape or in variety, should be sacrificed, but large and beautiful trees should seldom or never be removed. It is better in such instances to change the walk.



Avoid this!

6. The sites for all columns, shafts, and architectural objects of whatever nature, to be selected by a committee composed of the Mayor of the city, the President of the University of Illinois, the President of the Park Commission, the Head of the Department of Landscape Architecture at the University of Illinois, and the Head of the Department of Architecture at the University of Illinois.

7. Extension of East Springfield avenue, Urbana, thru to North avenue in a straight course. This will effect a quicker transit to the business section without encroaching upon adjoining property.



Fig. 14.—A TYPICAL ALLEY

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8. Retaining wall along Railroad street, Urbana, with sixteen foot driveway along the south side. Such a wall would lessen danger and open the street, which is an approach to the business district, to increased traffic.

9. Burial of telephone and electric light wires or removal of poles to the rear of the lots.

10. Removal of center parking from Washington street, Urbana. The street is too narrow for center parking treatment.

Finally, there must be a word as to the alleys. In residence districts, alleys are objectionable. They deduct from the depth of lot, are the direct cause of much traffic thru the rear yard, and are generally and notoriously dirty places. City streets are swept and sprinkled, but alleys seldom are. Without them, rear door yards may be developed both naturally and beautifully, and with the absolute assurance that delivery boys will not be endeavoring to make streets of them. Dispensing with alleys means that we may plant our rear dooryards artistically and convert them into outdoor living rooms.

W. L. TAYLOR.

STREET TREES

Street trees are valued for their shade and beauty. What attraction would a city without street trees afford to a visitor looking for a home? Would he not prefer to locate in a community well supplied with beautiful shade trees? The importance of the tree in the public streets cannot be overestimated. The tree thru its beauty encourages outdoor life and a love for city and home. That the real estate man, establishing a subdivision, realizes the value of street trees to property is evidenced by his early tree planting. In many cases this precedes the making of roads and the laying of walks. In no better way can public spirit be manifested than by planting trees in the streets for the benefit of all.

In the Twin Cities there are many examples of streets well planted with the best varieties of shade trees. This fact any citizen may well feel proud of. In most cases, also, the street parkings are well suited for the planting of trees. Many of the residential streets, however, are crowded with good and bad trees, while some streets have but few. In general, the trees are irregular in alignment and size, and they



Fig. 15.— SOME STREET TREES INHERITED FROM THE PAST

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Fig. 16.—BUTCHERING STREET TREES TO MAKE ROOM FOR WIRES

Street Trees

seem to be a little the worse for the lack of proper care. An example of overcrowding and poor selection can be seen on the west side of Lincoln avenue between Green and Illinois streets in Urbana. There are two and one-half times as many trees in this block as there ought to be. The poor street trees here are the Carolina poplar and the soft maple; the good ones are the American elm and the hard maple.

In Champaign, on the east side of State street, we find the trees to be of four different varieties, viz., American elm, hard maple, American ash, and box elder. The last named variety is a poor street tree. The number of trees on the east side of the street is proper, but they are planted too close together at one end of the block and about the right distance apart at the opposite end. The west side of the street in this block has no street trees at all. The selection of one good variety for a block or entire street, planting the trees an equal distance apart and in a straight line, would add greatly to the appearance of the street. Good shade trees should not be planted closer to each other than twenty-five feet at least.

Illustrations of improper tree pruning are unnecessary, since they are conspicuous in almost every street. In a civic work such as the care of shade trees, too much emphasis cannot be laid upon coöperation. Since one individual owns but a part of the property in a block, it becomes necessary for each owner to work with his neighbors, not independently of them. A community will get the benefit if an individual does the right thing for the trees in front of his property, but ordinarily his interest is spasmodic and likely to be ineffective. He neglects to have his trees properly trimmed, fertilized, and treated for injuries, or he secures the services of a "tree butcher," who ruins them.

When a community interest in shade trees has been awakened, it is best to place their care in the hands of a competent and trained city forester. In case this is not possible it is a good plan to establish a shade tree commission. If neither one of these procedures can be followed, it is advisable to have a city forester to work in conjunction with the park commissioners of the town. State laws should be made that would give ample powers to such bodies; an organization of this kind, properly supported by city ordinances and sufficient appropriations, would soon accomplish great results toward a "city beautiful."

J. F. THOMASON.

THE PARKS

In planning or replanning a city, the subject of parks should be treated with no little emphasis. In these days the public parks of cities are receiving particular attention. Those already existing are having their beauty and usefulness increased by modern equipment and well designed planting; at the same time, and with commendable foresight, new areas are being purchased in preparation for the future development of the city.

The question often arises, "Can the city afford a modern park system?" or, put another way, "Are parks and boulevards profitable?" That a city can afford them and that they are profitable is readily proved by numerous cases where cities have apparently assumed heavy burdens in laying out extensive park systems, only to find that the systems have paid for themselves in a comparatively short time by the resulting increase in taxes derived from surrounding property. This shows that the value of land increases more rapidly than the cost of the maintenance of parks and boulevards. Therefore, why not obtain land for such purposes now, while the cost is yet within the



Fig. 17 — PROPOSED BOULEVARD DRIVE TO GOLF LINKS

Parks

reach of the cities' means? Both Champaign and Urbana possess many natural as well as commercial advantages over other near-by cities. Why then should not our two cities show more active interest in the improvement of their public parks?

The Twin Cities are located in the midst of fertile prairies. Necessarily this fact has its effect upon the parks. It is unfortunate that there is no considerable body of water near the towns, so that water, and the natural beauty which usually accompanies it, cannot be utilized in the park scheme. Neither are there any hills worthy of the name in either of the two cities, so that the parks, which, after all, are only samples of the country brought into the city, must present the characteristic flatness of the prairies. In this study the parks of Champaign will be taken up first; then those of Urbana; and finally, the grounds of the university.

CHAMPAIGN

The city of Champaign is permitted to issue "anticipation warrants," designed to make available, in the current year, the next year's tax levy. Champaign, however, does not take advantage of this system; instead, the officials use, in the current year, the previous year's levy, and in this way they keep one year's levy always on hand to draw upon if necessary. In 1912 the tax levy for the city of Champaign was \$5.50 per \$100, assessed valuation, which is one-third of the real valuation. This was an increase of 84 cents over the tax rate for 1911. This levy of 1912 was divided as follows:

State tax on township	\$.38
County tax.....	.30
Bridge and road36
Registered bonds.....	.13
City of Champaign.....	1.39
School District No. 71.....	2.84
Parks.....	.10

It will be seen that the parks received a very small part of the total tax levy; but in comparison with other Illinois towns, Champaign spends more per capita for parks than most of them. For instance, Elgin spends 12 cents, Springfield, 82 cents, Quincy, 27.7 cents, Rockford, 8.5 cents, Danville, 8.8 cents, Decatur, 15.5 cents, and Champaign, 37 cents. For the past year a fund of about \$4600 was available for park purposes.

In Champaign there are three moderate-sized park areas: White Park, Scott Park, and Beardsley Park. Of these, White Park is the largest. It is bounded by Church street on the north, University

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avenue on the south, Elm street on the west, and State street on the east. It has an excellent location, being near the best residence district of Champaign and also near the business district. The New and Church street car lines pass it on the north. The large statue and fountain in the center are on the axis of Park avenue, and add much to the attractiveness of the park's appearance when approached from the east or west.

This park contains some valuable shade trees which have recently been pruned by tree experts. On the other hand, shrubbery planting has been entirely neglected, with the exception of a few spiraea which have been inartistically scattered beside one of the walks. Evidently, when the walk system was laid out, more attention was paid to the design than to the practicability of it. This is plainly seen by the paths which have been worn, because the walks do not go directly to the desired end, but wind aimlessly around. Some of the unnecessary curves may be seen in the accompanying photograph. The walks in this park should be straightened, especially in the direction of the most traffic, which is toward the northeast corner. At the walk intersections and at the corners, a few shrubs advantageously placed would



Fig. 18.—WHITE PARK

Parks

prevent any further cutting off of corners and would break the hard lines of the walks. The drinking fountain near the northeast entrance has been placed a short distance from the walk; consequently the grass has been trodden down between it and the walk. This should be more conveniently located and others installed in desirable places about the park. The bandstand and large statue are both well designed and well placed, but they lack the planting which would give them an artistic setting. Aside from the recreative and educational services which White Park now offers, it has a distinct social service to perform because of its proximity to the shopping district. Tired shoppers and store employees may find a change of scene and obtain rest for strained nerves in its restful beauty.

Scott Park is located on the east side of Champaign and covers a city block, bounded by Springfield avenue and Healy street, and Second and Third streets. The John street car line passes it on the east. In this park the walk arrangement has been well worked out, except for wriggly curves, but some shrubbery planting should be done to hide the bridges over the unsightly "Boneyard" and to screen the harsh walk intersections.

Beardsley Park, situated between Beardsley and Eureka avenues and Champaign and Walnut streets, has a very desirable location, being in the heart of a residence district made up of smaller homes. Little has yet been done in the way of beautifying this park, tho the trees were trimmed during the last summer. Footpaths have been worn along the lines of travel; walks should be laid here, and shrubbery should be planted where needed to screen walk junctions and bad views. Later, more improvements should be added to meet the requirements of the community. The Neil street car line runs a block west of this park.

In studying Champaign one notices a large number of small open spaces that have been dignified by the name of "park." Most of these so-called parks have become such because of their unavailability for other purposes. The triangular tract of land lying back of the city hall occupies a commanding position, but is not improved. Those attempts that have been made toward beautifying it are hidden by the drays and street cars which are allowed to stand in front of it.*

In his book entitled "Modern Civic Art," Mr. Charles Mulford Robinson says, "First impressions are notably virile and lasting, and

*Improvements have been made since the above was written, as the photograph taken in 1914 shows; but the space still falls short of its civic possibilities.

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1913



1914

Fig. 19.—TRIANGLE BACK OF CITY HALL

Parks



Fig. 20.—THE WRITHING WALK OF SCOTT PARK, CHAMPAIGN



Fig. 21.—A RAILING THAT DOES NOT PROTECT, IN SCOTT PARK

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the stranger must form his first impressions of the city from the view which meets his eyes as he passes from the station to enter the city." In Champaign, both the Illinois Central and Big Four railroads have developed small park areas in conjunction with their stations. These are neatly kept up and are treated more extensively than the public grounds of the city, and materially affect the strangers' "first impression."

Summarizing the study of Champaign, the following conditions may be noted:

1. That a small portion of the tax levy goes for park maintenance, but that it is large as compared with that of other Illinois towns.
2. That Champaign received in the last year some \$4600 for park use.
3. That White Park is conveniently located with reference to the business and residence districts of Champaign.
4. That the walks in White Park do not conform to the lines of traffic.
5. That the bandstand and fountain in White Park are well designed and well placed.
6. That the walk system in Scott Park is well worked out, but poorly executed.
7. That Beardsley Park is happily located in a district containing small house lots.
8. That there are no walks in Beardsley Park.
9. That all three parks are easily accessible by street car.
10. That there is very little shrubbery planting in the parks.
11. That the only drinking fountain is in White Park.
12. That there are a large number of small, poorly kept-up "parks" in Champaign.
13. That the city hall triangle occupies an important position.
14. That the railroad station grounds are well improved as compared with the public open spaces of the city.
15. That the small park areas are not under supervision.

URBANA

The parks of Urbana are under the supervision of a Board of Park Commissioners who have complete control of them. No cost data are at hand, so it is impossible in this report to make a comparison with other Illinois cities. Under a state law, of which Urbana has

Parks

taken advantage, the city is given permission to bond itself for not more than five per cent of its assessed valuation, the funds derived from the sale of these bonds to be used for park purposes. Urbana has issued a few bonds, but still has a large fund to fall back upon for the purchase of new park lands, the upkeep cost to be paid from the general fund.

In Urbana the park situation is somewhat better than in Champaign. Urbana has water within its limits, and advantage has been taken of



Fig. 22.—LAGOON IN CRYSTAL LAKE PARK, URBANA

it in the park development of the town. There are three parks in Urbana: Crystal Lake Park, Carle Park, and Leale Park.

Crystal Lake Park, lying three blocks north of the Big Four depot, is the largest park in Urbana. The Lake Shore car line serves this park. The tract possesses exceptional natural advantages and in time might be developed into one of the most beautiful parks in this part of the state. This park is large enough for the present needs of the city, but, as in the case of the parks of Champaign, it has been poorly handled. A successful start has been made, however, by planting along the south border of the park. Walks should be laid out and planting continued along them. The unsightly refreshment stands should be removed or replaced by an up-to-date café or a lunchroom. The present pavilion should be remodeled or a new one built in its stead, and the design of the building should harmonize with the sur-

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rounding landscape. The drive around the lake has been planted with elm trees, which in a few years will make a very attractive parkway. Planting should also be carried along the banks of the lake and over the many knolls, especially the one just northeast of the present pavilion and separated from it by water. This spot might be made very picturesque by planting carefully selected groups of shrubs over it. These changes, together with an enlargement of the lake, would make Crystal Lake Park a resort second to no other in this part of the state.

Leale Park, on University avenue, two blocks northwest of the Big Four depot, should at present remain untouched. This park has a comparatively well planned system of walks and planting on the east side, while the west side is now being used for a playground. It is the only favorable spot in this part of the town for a playground, and should be devoted to that purpose. The Lake Shore street cars run a block and a half east of this park.

Carle Park, covering some ten acres, is located just west of the new Urbana High School building and is well placed. It is in the heart of a portion of Urbana which is being rapidly settled by well-to-do residents. The new high school will naturally attract a large number of new families to this section of the city. This park was acquired at no expense to the city, having been a gift from Mrs. Morse. It has been recently planted with numerous trees which in a few years will afford valuable shade. In the case of this undeveloped park, having such a valuable location, it would be best to prepare now the landscape design that may be executed later, or by degrees, as the development of the community demands it.

The railway station grounds in Urbana have not been as carefully developed as those in Champaign, the Big Four railroad being the only one to attempt the improvement of its station grounds. Consequently the traveler's "first impression" of Urbana is not as good as it might be.

There is considerable open space, between the courthouse and the county prison, that is kept up by the county. Altho not a part of the city park system, it should be developed to meet the requirements of its location.

Summarizing our study of Urbana, we note the following conditions:

1. That Urbana has a body of water within its limits.
2. That more money for park purposes is available in Urbana than in Champaign.
3. That Crystal Lake Park has a good natural location.

Parks

4. That planting has been put in along the south border of the park.
5. That there is no good walk system in the park.
6. That a driveway has been laid out along the lake and planted with elms.
7. That the buildings of this park are poorly designed and constructed.
8. That the borders of the lake and other unattractive places have not been planted.
9. That the lake is comparatively narrow.
10. That Leale Park is well designed and planted.
11. That the west portion of this park is being used as a playground.
12. That Carle Park is exceptionally well located.
13. That a number of trees have recently been planted in this park.
14. That the station grounds are not carefully developed.
15. That the courthouse square is not suitably developed to meet the requirements of its location.

THE UNIVERSITY OF ILLINOIS

So far in this report only the park areas controlled by the towns have been mentioned; but midway between the towns and controlled by neither of them, yet practically a part of the park system of both, is the park-like campus of the University of Illinois. Since the campus with its improvements is privately controlled, it needs no further comment here.

CONCLUSION

Since the citizens of the Twin Cities in the past have had foresight enough to set aside our present park areas, why should not we, in turn, continue their work and set aside new areas, as the cities are steadily growing and have before them an assured future?

Southwest Champaign is rapidly developing, and a moderately large area should be reserved for park purposes before the cost of property increases further. This area should be at a considerable distance south of the present West End Park.

In Urbana, the tract of land just east of Crystal Lake Park might be bought and added to that park. A portion of this area should be developed into a playground. Southeast Urbana is in need of a park

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of some kind. Several small open areas suitable for parks are to be found in this district, and should be set aside by the city while they are still clear of buildings.

In conclusion we find that the park conditions are not much better nor much worse in the Twin Cities than in most other Illinois towns, but that there is room for improvement; and that all these changes and conditions, carefully considered and executed, will make the park systems of Urbana and Champaign able to more than hold their own, so that they will be considered as models to be patterned after by other modern cities of their size.

H. S. MUELLER.
H. T. REEVES.

PLAYGROUNDS

The first question which townspeople ask themselves when the subject of playgrounds is brought up, is, "Are they needed?" Playgrounds are often erroneously considered as distinctly the problem of the large cities which have slums and very badly congested districts. Playgrounds are, it is true, now recognized institutions in many of the larger cities; but they are worthily receiving increasing attention in the smaller cities and towns. As an indication of this attitude, a bill recently passed by the Massachusetts legislature requiring all towns with a population of over ten thousand to vote upon the subject of playgrounds is significant. In all kinds of communities they have been found to be strong factors for good, in serving to keep the children off the streets and in offering them an outlet for their energies, besides affording older people space for band concerts and for meetings of various kinds.

» A study of Champaign-Urbana shows that Champaign has a population of about twelve thousand and Urbana of about nine thousand people. The wealth of the Twin Cities has its source in the surrounding rich agricultural territory and is not mainly derived from manufacturing interests. As a result, the population consists in very small part of foreign born people. There are, however, a number of negroes of the poorer class in Champaign. This element, with the poorer white class principally lives in the northern part of the town. The property is cheap, the streets mostly unimproved, and only poor walks are provided. The general sanitary conditions of the section are poor, and go to prove that slums are not confined to large cities and foreign populations only.

This district in Champaign extends from University avenue north to the edge of town and from the Illinois Central railroad tracks to the east boundary of the city. The same class of people live across the border as far as Goodwin avenue. This tract, then, is about seven blocks wide, north and south, and ten blocks long, east and west. The balance of the residence portions of the two towns is in from fair to good condition, tho not much has been done in a recreational line.

Last year, however, a club was formed of prominent Urbana and Champaign people, known as the Twin City Playground Association.

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The funds were raised by public subscription to the amount of \$6000, \$3000 of which were to go for playgrounds, and \$3000 for a swimming pool. A man was engaged to make a survey of conditions and it was finally decided to equip two school yards in each city until more funds could be obtained. In Champaign, the Colonel Wolfe school on the east side and the Avenue school on the west side were equipped. In all there are eight active grammar schools in Champaign with a total enrollment of 1850, and it was unfortunate that no school yard was selected for the experiment in the northern part of town, where a playground was badly needed. The reason is evident, however, for the donors of the fund naturally demanded the playground in their immediate section, instead of in a section from which no subscriptions were received.

The fund raised for playgrounds by the association has been found to be inadequate, and little can be done until additional money is raised. It has been suggested that the proposed pool be located in Scott Park. Tho Scott Park is a desirable location as regards accessibility by both cities, it is our judgment that the park should not be devoted to this use. Rather, the vacant lots facing the park on Healey and Third streets should be acquired and used for the swimming pool and playground. Champaign people, however, have furnished most of the money and are now agitating the location of the pool nearer the center of their own town.

In Champaign, the schools have sufficient play space, with the exception of the Lincoln, Marquette, and Gregory schools, tho it might be well to point out that the Colonel Wolfe school, in spite of the playground equipment which the association has given it, lacks complete efficiency as a result of a lack of adequate supervision. The playground should be an example of orderliness and neatness, and in this should be an inspiration to the children and a thing of which the children are proud. The play area of this yard has not been separated from the lawn areas, and the final location of the apparatus could be better arranged. In fact, this criticism might be applied generally to the other school yards in both towns.

In Urbana the four grammar schools have sufficient room, and two, the Leal and Webber, are equipped with playground apparatus to the extent of the available funds.

In both towns the high schools are fortunate in having large grounds for their athletic activities, the grounds of the Champaign High School having been purchased thru a private donation for that purpose.

Playgrounds



Fig. 23.—VIEWS OF THE GROUNDS OF THE COLONEL WOLFE SCHOOL, SHOWING NEGLECTED OPPORTUNITIES

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The school playgrounds are under the general supervision of Mr. Mills of the Chicago park system. His salary of \$1500 is paid as follows: \$500 by the Playground Association, \$400 by Urbana, and \$600 by Champaign. He works in Urbana on Tuesday and Thursday and the remainder of the week in Champaign. Girls from the university who are specializing in physical training are assisting in the afternoons and on Saturdays, acting as instructors at the respective schools. They receive no pay.

Properly considered, the subject of playgrounds is wide in its scope, including not only the children and young people but the older members of the community as well. It is a recognized fact that the things people do in their leisure hours are the things not only vitally relating to their health but also to their morals, characters, and personalities. Therefore, the problem of recreation is concerned not so much with the question of the desirability of leisure time, as with the proper use of that time.

As regards the future, it is necessary to decide what groups of people we wish to reach. There are two important groups to be considered in this connection—school children, and working people. The school children are really divisible into two groups also, the small children and the larger ones, over ten years old, the older of whom can use the larger playgrounds, such as that proposed adjoining Scott Park. The university students need not be considered, since they are well provided for by the university.

The selection and location of all playgrounds should be made with this classification in mind. Hence, playground sites for small children should be confined to the more densely populated districts of the cities. The school grounds, or lots close by them, are best suited for this group. The control, however, should be under a separate commission rather than under the school board.

School yards are for many reasons admirably adapted to serve as playgrounds for young children, both because of the economy in running playgrounds in conjunction with the schools, thus not having to support them as separate units, and for other reasons which are stated below. But it must not be forgotten that school grounds alone are inadequate to handle the entire recreational situation. Larger, more fully equipped playgrounds, which older people and the young men and women of the community can enjoy, must supplement the school playgrounds.

School grounds are good places in which to locate the playgrounds

Playgrounds

of younger children for these reasons: They are already owned and maintained by the city, and it requires but a slight additional cost to equip and maintain the playground when once the land is secured. They offer toilet and shelter facilities without extra expense. Attendance is increased, since the children find the school and its yard attractive. The playground serves to keep the children off the street besides affording them an opportunity to mingle, to know each other, and to develop self-reliance and individuality. It gives a safe vent to their animal spirits and their impulses for recreation and action, with the result that when they settle down to study they give their entire attention to their work.

In suggesting a concrete scheme for future development, the following is recommended for both cities: That for the first group, composed of school children, the school yards be made as nearly as possible into playgrounds, with proper equipment and apparatus; that where possible, the children be allowed to have small individual gardens; that a closer study of the location of the apparatus be made so as to make the school yards as attractive as possible while combining all the facilities in such a manner as not to interfere. At present, of course, lack of money hampers this to some extent, since it prevents the taking of steps to drain the property and put it in good condition. Study would show that in each case a portion of the grounds could be properly planted out with shrubbery and turf, with the use of thorny shrubs where children would be likely to cut corners or damage it. This portion would also serve, perhaps, as a subject for class study. Planting about the building would make it and the yard much more attractive and might in some localities aid in improving the neighborhood. At present, more apparatus is desirable in all the school yards. Giant strides should be installed for use in the playgrounds, as they add quite a bit to the pleasure of the nervous boy at a small cost. For the smaller children, sand boxes, slides, see-saws, and swings afford ample amusement and are not prohibitive in price. Parallel bars, trapezes, and other outdoor gymnastic apparatus are good for the growing boys, while swings, simple gymnastic apparatus, and a grass area upon which to play games, satisfy the girls.

The older group, composed of working people and older children, should be provided for by the recreation area mentioned above, adjoining Scott Park. This should be equipped with a swimming pool, a field-house, and gymnastic apparatus, and should be developed as soon as possible. This recreation area is relatively central in location

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and easily reached by street cars, and should serve both towns for some time. Later, as a greater need for it arises, a portion of Crystal Lake Park should be properly equipped for this purpose in Urbana, as should West End Park in Champaign. Crystal Lake Park would conveniently serve the people in the vicinity of the Big Four shops as well as Urbana in general, while West End Park could very well accommodate the people out near Bonner.

The two athletic fields which are near the respective high schools of each city should be improved. At present they are worthless. Plans for their development should be made at once. The new tract of land recently acquired on the south side of Champaign near the new high school will make an admirable field and playground for that district when properly developed, as there is enough space for a running track, baseball, basketball, and a football field, beside other forms of amusement which could be worked in. Skating could also be provided for in the winter by flooding, and is especially needed in that vicinity. The same type of development should be followed with the Urbana High School.

As the present manner of financing the recreative system is inadequate and short-sighted, a better way to provide the funds should be evolved. Two common ways exist. One is known as the district plan; the other provides a fund by a general tax of a certain number of mills, to be devoted to playgrounds, upon each dollar of tax. The latter plan would probably prove the best; under such arrangement a definite scheme of development should be followed. The amount available for this kind of work would be definitely known and would increase as the city grows. Besides, sudden desires for economy could not then destroy the maintenance program. The removal of the management of the playgrounds from possible future political control or influence, by means of a separate commission established under the constitution and requiring no appropriation, would also be a desirable step. Until such a system is well organized and put in force, the management and advancement is likely to be haphazard and irregular. The commission should not be under the school board.

As regards the people working in the shops and factories, until the proposed play areas are established, it might be suggested to the managements that land owned by them in the vicinity of their factories might be developed into recreation areas, with great profit to them in increased efficiency. The shops of E. M. Burr and Company in the northern part of Champaign and the Big Four shops in Urbana especially

Playgrounds

need recreation provisions. It is fitting that the playfields be established in part at least, by the factories affected, as they reap the benefit in greater efficiency.

The playgrounds to the extent recommended herein would not be a luxury but a very practical investment, and would do much to raise the moral and physical tone of the towns.

C. B. ANDREWS.
JEAN K. RIPLEY.
W. L. RAMSEY.
W. M. WELTY.

EXTRACT FROM CHICAGO SOUTH SIDE PARK COMMISSION REPORT, 1909.

Swimming Pools:

The swimming pools not only furnish means of cleanliness, but are an unsurpassed form of recreation during the hot days of June to September inclusive. The total number of bathers were 768,509. It was not an uncommon event in any of the parks to have an attendance of from ten to twelve thousand weekly. The pools were open from 10 a. m. to 10 p. m. daily. Girls were given exclusive use two days and two nights out of each week, boys and men three days and nights, and the remaining two days were used for emptying, cleaning, and filling the pools. Instructors in swimming were not employed, but the pools were guarded by life savers, who were not only watchful to the patrons of the pool but who gave suggestive assistance to those who were learning to swim. Each person who entered the pool was required before entering to take a thorough shower bath, and to give evidence of freedom from disease. These safeguards have enabled us to record the fourth season of operation of the pools without evidence of skin, eye, or throat affections resulting from the use of the pools. Swimming and diving contests were held in many of the pools, to the keenest delight of the bathers.

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